

AFTER ALLOWANCE AMENDMENT TO THE CLAIMS

PURSUANT TO 37 CFR 1.312

A complete listing of the current pending claims is provided and supersedes all previous claim listing(s). Claims 1, 4, 10, 21, 25, 31, 44, and 50, are currently amended to correct typographical errors. The remaining claims remain unchanged. No new matter has been added.

1. (Currently Amended) A method of diagnosing a computer system after a failure comprising:
preserving in place the state of a first set of system resources after the failure occurs in the computer system;
accessing the computer system by utilizing a second set of system resources; and
diagnosing the failure by analyzing one or more resources from the first set of system resources.
2. (Previously Presented) The method of claim 1 further comprising:
maintaining one or more lists of the first set of system resources.
3. (Previously Presented) The method of claim 2 in which the one or more lists are linked lists.
4. (Currently Amended) The method of claim 1 in which the first set of system resources comprises processing entities.
5. (Previously Presented) The method of claim 4 in which the processing entities comprise processes which are categorized into process types.
6. (Previously Presented) The method of claim 5 in which the act of preserving the state of the first set of the system resources comprises suspending the state of one or more of the processes in the first set of system resources.
7. (Previously Presented) The method of claim 6 in which the one or more processes to suspend are suspended by being entered into an idle loop.

8. (Previously Presented) The method of claim 6 in which the one or more processes to suspend are suspended by an operating system scheduler.
9. (Previously Presented) The method of claim 6 in which the one or more processes to suspend are selected based upon their process type.
10. (Currently Amended) The method of claim 1 in which the second set of system resources comprises system resources that have been set aside for diagnostic purposes.
11. (Previously Presented) The method of claim 1 in which the second set of system resources comprises redundant hardware/software components.
12. (Previously Presented) A method of diagnosing a computer system after a failure comprising:
detecting a failure on a first computer system;
implementing fail-over to a second computer system after detecting the failure on the first computer system;
preserving in place the state of one or more resources on the first computer system;
accessing the first computer system to diagnose the failure; and
diagnosing the failure by analyzing the one or more resources.
13. (Previously Presented) The method of claim 12 further comprising:
maintaining a redundant system component for the first computer system; and
shifting control of the redundant system component to the second computer system after the failure.
14. (Previously Presented) The method of claim 13 in which the redundant system component comprises a disk drive.
15. (Previously Presented) The method of claim 12 in which the one or more resources comprise one or more processing entities.
16. (Previously Presented) The method of claim 15 in which the one or more processing entities comprise processes.

17. (Previously Presented) The method of claim 15 in which the act of preserving the state of one or more resources on the first computer system comprises suspending the one or more processing entities.

18. (Previously Presented) The method of claim 17 in which the one or more processing entities are suspended by being entered into an idle loop.

19. (Previously Presented) The method of claim 17 in which the one or more processing entities to suspend are suspended by an operating system scheduler.

20. (Previously Presented) The method of claim 12 further comprising the act of categorizing the failure into a failure type, and in which the failure type corresponds to the choice of the one or more resources to suspend.

21. (Currently Amended) A medium readable by a processor, the medium being stored thereon a sequence of instructions which, when executed by the processor, causes the execution of a process of preserving the state of a computer system after a failure by performing:

- preserving in place the state of a first set of system resources after the failure occurs in the computer system;

- accessing the computer system by utilizing a second set of system resources; and

- diagnosing the failure by analyzing one or more resources from the first set of system resources.

22. (Previously Presented) A medium readable by a processor, the medium being stored thereon a sequence of instructions which, when executed by the processor, causes the execution of a process of preserving the state of a computer system after a failure by performing:

- detecting a failure on a first computer system;

- implementing fail-over to a second computer system after detecting the failure on the first computer system;

- preserving in place the state of one or more resources on the first computer system;

- accessing the first computer system to diagnose the failure; and

- diagnosing the failure by analyzing the one or more resources.

23. (Previously Presented) The medium of claim 21, wherein the process further comprises:
maintaining one or more lists of the first set of system resources.
24. (Previously Presented) The medium of claim 23 in which the one or more lists are linked
lists.
25. (Currently Amended) The medium of claim 21 in which the first set of system resources
comprises processing entities.
26. (Previously Presented) The medium of claim 25 in which the processing entities comprise
processes which are categorized into process types.
27. (Previously Presented) The medium of claim 26 in which the act of preserving the state of the
first set of the system resources comprises suspending the state of one or more of the processes in the
first set of system resources.
28. (Previously Presented) The medium of claim 26 in which the one or more processes to
suspend are suspended by being entered into an idle loop.
29. (Previously Presented) The medium of claim 26 in which the one or more processes to
suspend are suspended by an operating system scheduler.
30. (Previously Presented) The medium of claim 26 in which the one or more processes to
suspend are selected based upon their process type.
31. (Currently Amended) The medium of claim 21 in which the second set of system resources
comprises system resources that have been set aside for diagnostic purposes.
32. (Previously Presented) The medium of claim 21 in which the second set of system resources
comprises redundant hardware/software components.
33. (Previously Presented) The medium of claim 22, wherein the process further comprises:
maintaining a redundant system component for the first computer system; and
shifting control of the redundant system component to the second computer system after the
failure.

34. (Previously Presented) The medium of claim 33 in which the redundant system component comprises a disk drive.
35. (Previously Presented) The medium of claim 22 in which the one or more resources comprise one or more processing entities.
36. (Previously Presented) The medium of claim 35 in which the one or more processing entities comprise processes.
37. (Previously Presented) The medium of claim 35 in which the act of preserving the state of one or more resources on the first computer system comprises suspending the one or more processing entities.
38. (Previously Presented) The medium of claim 37 in which the one or more processing entities are suspended by being entered into an idle loop.
39. (Previously Presented) The medium of claim 37 in which the one or more processing entities to suspend are suspended by an operating system scheduler.
40. (Previously Presented) The medium of claim 22 further comprising the act of categorizing the failure into a failure type, and in which the failure type corresponds to the choice of the one or more resources to suspend.
41. (Previously Presented) A system for diagnosing a computer system after a failure comprising:
a preservation module for preserving in place the state of a first set of system resources after the failure occurs in the computer system;
an access module for accessing the computer system by utilizing a second set of system resources; and
a diagnosis module for diagnosing the failure by analyzing one or more resources from the first set of system resources.
42. (Previously Presented) The system of claim 41 further comprising:
a list maintenance module, for maintaining one or more lists of the first set of system resources.

43. (Previously Presented) The system of claim 42 in which the one or more lists are linked lists.
44. (Currently Amended) The system of claim 41 in which the first set of system resources comprises processing entities.
45. (Previously Presented) The system of claim 44 in which the processing entities comprise processes which are categorized into process types.
46. (Previously Presented) The system of claim 45 in which the preservation module preserves the state of the first set of the system resources by suspending the state of one or more of the processes in the first set of system resources.
47. (Previously Presented) The system of claim 46 in which the one or more processes to suspend are suspended by being entered into an idle loop.
48. (Previously Presented) The system of claim 46 in which the one or more processes to suspend are suspended by an operating system scheduler.
49. (Previously Presented) The system of claim 46 in which the one or more processes to suspend are selected based upon their process type.
50. (Currently Amended) The system of claim 41 in which the second set of system resources comprises system resources that have been set aside for diagnostic purposes.
51. (Previously Presented) The system of claim 41 in which the second set of system resources comprises redundant hardware/software components.
52. (Previously Presented) A system for diagnosing a computer system after a failure comprising:
 - a failure detection module, for detecting a failure on a first computer system;
 - a fail-over module, for implementing fail-over to a second computer system after detecting the failure on the first computer system;
 - a resource preservation module, for preserving in place the state of one or more resources on the first computer system;
 - an access module for accessing the first computer system to diagnose the failure; and

a diagnosis module, for diagnosing the failure by analyzing the one or more resources.

53. (Previously Presented) The system of claim 52 further comprising:
a redundant system component for the first computer system; and
a control module for shifting control of the redundant system component to the second computer system after the failure.
54. (Previously Presented) The system of claim 53 in which the redundant system component comprises a disk drive.
55. (Previously Presented) The system of claim 52 in which the one or more resources comprise one or more processing entities.
56. (Previously Presented) The system of claim 55 in which the one or more processing entities comprise processes.
57. (Previously Presented) The system of claim 55 in which the preservation module preserves the state of one or more resources on the first computer system by suspending the one or more processing entities.
58. (Previously Presented) The system of claim 57 in which the one or more processing entities are suspended by being entered into an idle loop.
59. (Previously Presented) The system of claim 57 in which the one or more processing entities to suspend are suspended by an operating system scheduler.
60. (Previously Presented) The system of claim 52 further comprising a categorization module for categorizing the failure into a failure type, in which the failure type corresponds to the choice of the one or more resources to suspend.
61. (Previously Presented) The method of claim 1, wherein preserving in place the state of a first set of system resources comprises freezing the state of the first set of system resources.
62. (Previously Presented) The method of claim 1, wherein preserving in place the state of a first set of system resources does not require any copying of the state of the first set of system resources.

63. (Previously Presented) The method of claim 12, wherein preserving in place the state of one or more resources comprises freezing the state of the first set of system resources.
64. (Previously Presented) The method of claim 12, wherein preserving in place the state of one or more resources does not require any copying of the state of the one or more resources.
65. (Previously Presented) The medium of claim 21, wherein preserving in place the state of a first set of system resources comprises freezing the state of the one or more resources.
66. (Previously Presented) The medium of claim 21, wherein preserving in place the state of a first set of system resources does not require any copying of the state of the first set of system resources.
67. (Previously Presented) The medium of claim 22, wherein preserving in place the state of one or more resources comprises freezing the state of the one or more resources.
68. (Previously Presented) The medium of claim 22, wherein preserving in place the state of one or more resources does not require any copying of the state of the one or more resources.
69. (Previously Presented) The system of claim 41, wherein preserving in place the state of a first set of system resources comprises freezing the state of the one or more resources.
70. (Previously Presented) The system of claim 41, wherein preserving in place the state of a first set of system resources does not require any copying of the state of the first set of system resources.
71. (Previously Presented) The system of claim 52, wherein preserving in place the state of one or more resources comprises freezing the state of the one or more resources.
72. (Previously Presented) The system of claim 52, wherein preserving in place the state of one or more resources does not require any copying of the state of the one or more resources.